

Remarks

Claims 1-67 are pending in the application. By the foregoing amendment, Applicants have amended claims 1, 2, 4 - 6, 8, 9, 10, 60, 63, 65 and 67. No new matter is entered as the language added to the claims merely adds definition to the elements that were previously denoted by notation to a letter. All of the changes are specifically supported by the specification or inherent therefrom and from the text of the claims themselves.

Indefiniteness

In paragraph 2 of the Office Action, the Patent Office has rejected claims 1-67 under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as their invention. Specifically, the Patent Office contends that applicants specific use of letters, in a non-sequential manner, as delineators of the distinct aspects of the claims is unduly confusing. The Patent Office also considers Applicants inconsistent use of the terms “on”, “onto” in relation to each other and in relation to the phrase “against the inward side” is likewise confusing and indefinite. In order to address the foregoing issues, the claims have been amended as follows.

Claim 1 has been amended to delete all reference to the letter designators and reformulate the claim, using small Roman numerals to delineate between the various parameters of the claims, and to expound on the elements of the claims to make the same more clear.

Claim 2 has been amended to make clear which test area is being referred to.

Claim 4 has been amended to delete the letter designators.

Claim 5 has been amended to make clear that the sense of discontinuity refers to the adhesive in the plane of the adhesive rather than at the adhesive/substrate interface. In this sense, a solid film of adhesive would be continuous whereas a plurality of dots, lines or other configurations of adhesive in the same plane as the film would be discontinuous.

Claims 6 and 8 have been amended to delete the letter designators.

Claim 9 has been amended to delete reference to the letter designators and insert the written description of the elements previously referred to by those designations.

Claims 10, 60, 63, 65 and 67 have been amended to delete the letter designators.

By the foregoing amendments, Applicants have addressed the rejection based on the use of letters in a non-sequential manner for delineating between the distinct elements of the claims by resorting to the use of lower case Roman numerals in sequence.

Applicants have also amended the claims to speak of the test piece as being placed "on" the adhesive in all instances where Applicants previously used the word "onto" or "against". Applicants believe that whether one speaks of placing the test surface "on", "onto" or "against" is really irrelevant. It is clear from the specification and the drawings, as well as the claims, that what is being determined is the percentage of the surface area of the test piece or, as appropriate, the susceptor that is in contact with the adhesive. Applicants' diction may not have been precise, but Applicants still believe the meaning was clear. Regardless, Applicants have amended the text to be consistent with the use of the word "on".

In light of the foregoing amendments, Applicants believe all of the rejections based on indefiniteness have been fully addressed. Therefore, Applicants respectfully request that the rejections based on Section 112, be withdrawn.

Art Rejections

Claims 1-67 stand rejected under 35 USC 102(b) as being anticipated by or, in the alternative, under 35 USC 103 as being obvious over Brooks. The Patent Office directs Applicants to column 3, lines 31-37, of Brooks wherein Brooks indicates that the adhesive may be applied in a number of different patterns. Consequently the Patent Office concludes that the structure of Brooks explicitly or inherently reads upon Applicants' invention and claimed performance parameters or, alternatively, that

Applicants' patterns are mere optimizations of the Brooks invention and, in the absence of unexpected results, are obvious therefrom.

Applicants acknowledge that Brooks indicates that various adhesive patterns could be used; however, Brooks does not speak of, suggest or infer, explicitly or inherently, the adhesive patterns as required by the claims of the present application. The latter speaks of a specific subset of adhesive patterns which meet certain defined dimensional and spatial parameters characterized by, in the most simplest of terms, the ability to inscribe circles of certain diameters within a defined percentage of the area defined by the adhesive/susceptor or adhesive/test piece interface: none of which are shown, suggested or inferred by Brooks. Consequently, Brooks does not and cannot anticipate Applicants' invention since they have not demonstrated nor disclosed the same, explicitly or inherently.

Furthermore, any argument of lack of patentability for obviousness is overcome in view of the unexpected results as set forth in the appended Declaration of Mark R. Holzer, a former employee of the assignee of the present invention. Specifically, as shown in the Declaration, the use of adhesive patterns in accordance with the teaching of the present invention resulted in unexpectedly improved debonding characteristics as compared to adhesive patterns having the same or even smaller bond areas, i.e., adhesive/substrate interface, but failing the inscribed circle parameter. This is particularly surprising when one considers the nature of the system tested. Specifically, the heat necessary for effecting the activation or melting of the adhesive for effecting the bonding and/or debonding of the adhesive devices of the present invention is generated in the susceptor upon exposure of the susceptor to electromagnetic energy generated by the induction tool. Since, in each test, the tool, susceptor and energy delivered are the same, the presumption is that the heating pattern in each test or susceptor is the same. And, since there is little if any transverse heat transfer in the susceptor, due especially to the ultra thin nature of the susceptor material itself, essentially all heat available for transfer to the adhesive is generated in that portion of the susceptor in contact with the adhesive with such heat being transferred to the adhesive at the adhesive/susceptor interface. There is

little, if any, transverse heating across the susceptor and then into the adhesive. Thus, one would have presumed that the debonding test would have provided the same, or essentially the same, results for all tests, especially for those tests wherein the same surface area of adhesive was employed. Yet, as noted above and as seen in the Declaration, there was a marked difference in the results. Specifically, the samples having an adhesive pattern meeting the strict parameters of the claims of the present invention performed markedly better, as evidenced by the improved debonding performance, than similar adhesive patterns, though not within the parameters, yet having the same surface area contact or even less. It was especially surprising to find an adhesive device that debonded more cleanly than a similar device but of one-half the bond line or bond interface. Said another way, one would not have expected a bond having twice as much adhesive to debond more cleanly, when exposed to the same heat energy and conditions.

Thus, Applicants believe that their claims define a subset of adhesive patterns which provide a unique and markedly and unexpectedly better performance, especially from a debonding perspective, as compared to similar adhesive patters not following the strict dimensional and spatial parameters as required by the present claims. As such, Applicants believe they have overcome any premise of anticipation or obvious and, thus respectfully request that the rejections be withdrawn and the application passed on to early and favorable consideration.

Petition For Extension of Time

By this response, Applicants hereby petition for a two-month extension of time; thereby extending the response period from September 24, 2003 to and including November 24, 2003. Enclosed is payment of the Petition Fee in the amount of \$420.00.

Fees

Enclosed is Credit Card Authorization in the amount of \$420.00 as payment of the Petition Fee for the Petition for Two Month Extension of Time. No addition fees are necessary as no new claims have been added.

Conclusion

In view of the foregoing amendment and response, all matters raised in the Office Action have been fully addressed. Applicants believe the present application is now in condition for allowance and early and favorable consideration is hereby requested. Should there be any questions, please contact the undersigned, Applicant's attorney.

Respectfully submitted,



Edward K. Welch II
Attorney for Applicants
Reg. No. 30,899
c/o Frost Brown Todd LLC
2200 PNC Center
201 East Fifth Street
Cincinnati, OH 45202-4182
Tel.: 781-718-9512
Fax: 978-412-0039
e-mail: welched@comcast.net